

**APPARATUS AND METHOD FOR MANIPULATING
CORE BODY TEMPERATURE**

ABSTRACT OF THE DISCLOSURE

5 The present invention provides a system for manipulating a core body
temperature of a mammal. The system of the invention includes a chamber for
enclosing a body portion of a mammal and a seal in operative association with the
chamber for sealing the chamber around the body portion and for inhibiting movement
of the body portion relative to the chamber when the system is in operation. A thermal
energy exchange system in operative association with the chamber includes an energy
10 element assembly coupled to a flexible membrane assembly. The flexible membrane
assembly facilitates an exchange of energy between the energy element assembly and
the body portion. A vacuum system is operatively associated with the chamber while
the thermal energy exchange system is in operation. The vacuum system generates a
sub-atmospheric pressure within the chamber.

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